

Intercultural **C**ollaboration **E**xperiment **2002**

-Open Source Software Development
Using Machine Translation-

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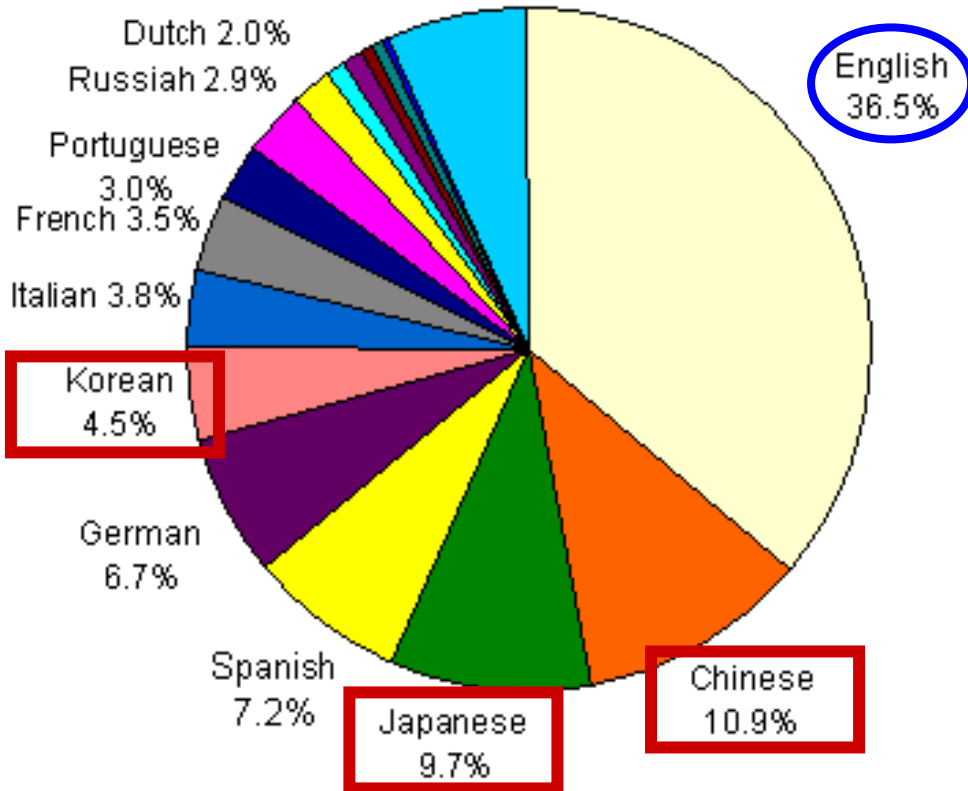
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Asian Internet Population will Surpass US and Europe in 2003

Online Language Populations
Total: 619 Million
(Sept. 2002)



Asian Internet Population in 2003

- 183.3 million
- 162.8 million in the US
- 162.2 million in Western European Countries

(http://cyberatlas.internet.com/big_picture/geographics/print/0,,5911_861481,00.html)



Language Barriers Hinders Asia-Wide Collaboration

- Global collaboration is ongoing in English speaking countries
- European Union encourages Europe wide projects
- But.... **a serious language barrier** exists in Asian countries
 - Asian people do not learn neighboring languages.
 - Asian people want to make documents in their mother languages

Some Good Solution Using Internet features??

 **Machine Translation as a bridging agent!!**



Intercultural Collaboration Experiment ICE2002



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Shanghai Computer Society (SCS)



Intercultural Collaboration

Experiment 2002

- Collaborative Experiment Project among **Asian Universities**
 - **China:** Shanghai Jiao Tong University
 - **Korea:** Seoul National University, Handong University
 - **Malaysia:** Malaya University
 - **Japan:** Kyoto University
- Goal of the Experiment:
 - **Open Source Software Development** by a multinational team
- Schedule of the Experiment
 - May 20 -- July 19, 2002 (the first track)
 - October 10 – December 15, 2002 (the second track)

ICE2002 Members



ICE2002 Organizers



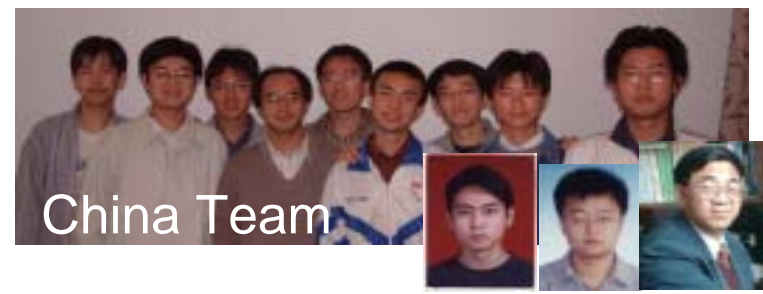
Japan Team



Korea Team



Malaysia Team



China Team

Characteristics of ICE2002

• Collaboration in MOTHER LANGUAGES

– Asian people want to make middle documents in their own Mother languages!

– Machine translation service supports collaboration among multinational team

- Confirm *applicability of machine translation to multinational collaborative works.*

c.f.) Preceding studies by natural language researchers: Evaluate translation quality on *written documents*, such as news paper articles



• Software Development as a Task

– Activities which achieves one goal

- Not just a chat, but a collaborative activity

– High demand on multinational software development among Asian counties

Multilingual Collaboration Tools (1)

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TransWeb

OGC Web Translation Tool - Microsoft Internet Explorer

Translation Service Priority: Language pair:
1. J-server 2. arcnet/sangenjaya English->Korean

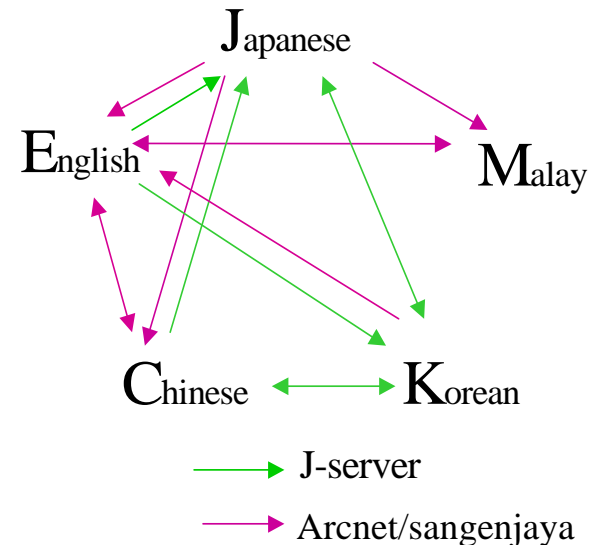
URL:
http://www.lab7.kuis.kyoto-u.ac.jp/~saka/instruction/instructionTransChe translate

<5월9일에 업데이트(update) 됩니다>

다음문화간의협형신제로경험2002
실험의 순서
1번째 반: 소프트웨어/software 디자인/design 단계
-우리들은 당신을 환영합니다 Trans BBS를 통과하는 코멘트(comment)!!! -

1. 개요
이 실험의 2개의 목적이 있습니다.
1. 다문화간의 협력 tool을 개발해 주십시오. tool은 다문화간 커뮤니케이션(communication)을 서포트(support)하고, 쉽게 할 것입니다.
2. 개발 프로세스(process)를 통해서, 참가자는 참가자의 자연 언어만에 있어서 이야기해야 합니다. 기계번역은 실험의 사이에 참가자의 메시지(message)를 번역합니다. 우리들은, 이하를 밝히는 것을 기대합니다 : 참가자는 어떻게 번역 에러(error)와 오해의 난제에 이릅니까?
실험의 참가자는 다음과 같이입니다.
- 참가자
실험에 참가하는 10명에게서 20명까지의 참가자가 있습니다. 참가자는 이하의 나라에서입니다 : 중국, 일본, 한국, 및 말레이시아(Malaysia), 참가자가, 단일인 협력 tool (또는, 적어도 통합된 인터페이스(interface))를 작성하므로, 참가자는 국경계를 가로지르는 멤버(member)와 협력해야 합니다.
참가자는 4개의 팀(team)에 분할됩니다.
- 그룹(group) 구성(국 베이스(base)): 참가자는 그것들의 자연 언어에 의해 4그룹(group)에 분할됩니다 : 중국, 일본, 한국, 및 말레이시아(Malaysia)팀, 어드바이저(adviser)와 리더(leader)는, 각각의 팀(team)에 존재합니다. (아무조각, ...)

Translation among Chinese, Japanese, Korean, Malay, and English



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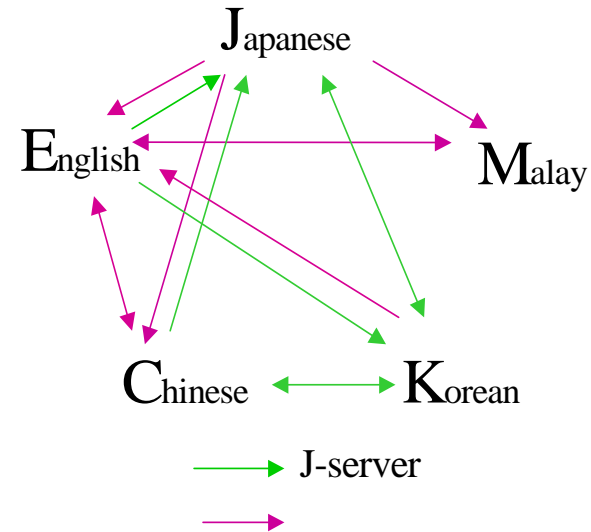
Multilingual Collaboration Tools (2)

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TransBBS

Translation among Chinese, Japanese, Korean, Malay, and English



1. Input Message

2. Translate then Post

3. Display

C J K M E

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NTT MSC Sdn. Bhd.
NTT Cyber Space
Laboratories

Arcnet/sangenjaya
powered by
KODENSHI

Poor Translation Quality on TransBBS

高者: calvin sheng || [document](#)

效果好象不太好啊

05月21日 火曜日 12時54分08秒



	英語(retranslate)	中国語	韓国語(retranslate)
は私 のたい	The content translation comes out I see to don't quite know	翻译出来的内容我看不太懂	번역한 내용은 나는 그다지 모르는 것을 본다

Translation Repair Trials Before Posting

Participants want to convey their messages correctly to other members!

of posting message

66 Bikesh
 51 Tomoko
 35 Fujishiro
 28 pascal21
 28 Haolei
 18 Lindonghui



of repair trials

395 Tomoko
 170 Fujishiro
 112 Bikesh
 76 lindonghui
 71 pascal21
 48 Haolei

8 times repairs
per one posting

Data on TransBBS from Oct 10th to 30th

Adaptation Emerged...

- when writing
 - **Repair translation again and again before posting**
- when reading
 - **Browse multiple languages on TransBBS**

japana-149 || 投稿者: FUJISHIRO Yoshiyuki || [document](#)

subject: We want to know whether you got my message(japana-148)

投稿日時: 2002年05月23日 木曜日 13時58分42秒



本語	英語(retranslate)	中国語(retranslate)	韓国語(retranslate)	Malay(retranslate)
あなたが私の投稿(japana-148)を理解できたかどうかを私たちは知りたい。あなたが理解した部分をあなたの言語を	We want to know whether you could understand the my contribution japana-148 or not. We, please contribute using your language	你能理解与否我的投稿(japana-148)我们想知道。你理解的部分使用你的语言请投稿。同时,	당신이 나의 투고(japana-148)을 이해할 수 있었던 것인가 아닌가를 우리들은 알고 싶다. 당신이 이해한 부분을 당신의 언어를	Kami h whether dapat t japana- saya, o contrib anda, k

Collaboration Emerged...

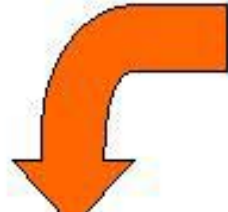
- To overcome translation errors
- Technical discussions succeeded in spite of poor translation quality

malay-252 Posted by: Puja Lakshmi document				
Subject:				
Date Posted: Monday, June 3, 2002 13:39:33				
Japanese(retranslate)	English	Chinese(retranslate)	Korean(retranslate)	Malay(retranslate)
メール横断は、attachment..will that 翻訳 また で、もしメールの持ち意志 内容翻訳のについて、および持たせているよいidea.Butですか？	Transmail is a good idea.But how will the content be translated and if the mail has an attachment..will that be translated too?	Transmail是一个好主意。但是如何将内容被翻译和如果邮件有一份附件。。也被翻译的意愿？	메일 횡단은, attachment.. will that 번역 포이어서, 만약 메일의 가집 의 지내용번역의에 대해서, 미쳐 갖게 하고 있는 좋은 idea. But 입니까?	Transmail adalah suatu cadangan baik. Tetapi diterjemahkan bagaimana akan kandungan dan jika surat mempunyai suatu lampiran .. Akan yang diterjemahkan juga?

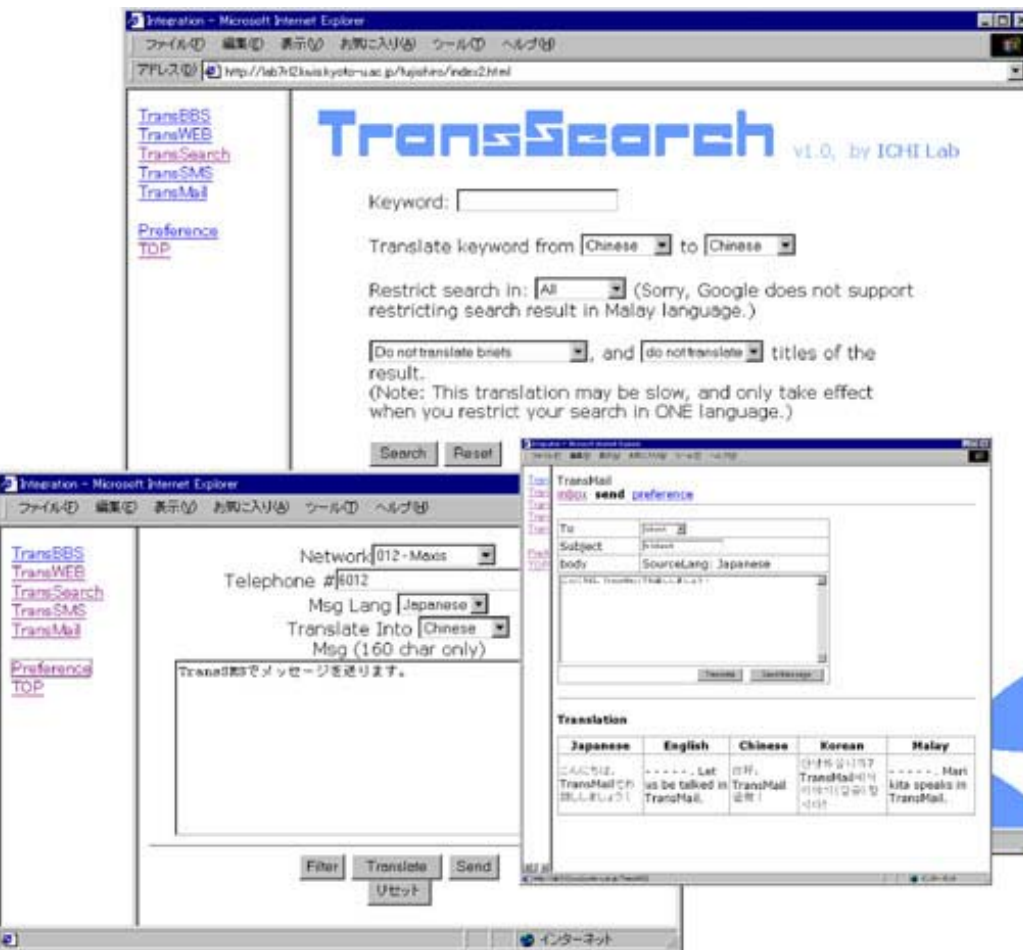
japana-254 Posted by: FUJISHIRO Yoshiyuki document			
Subject:			
Date Posted: Monday, June 3, 2002 19:53:43			
Japanese	English(retranslate)	Chinese(retranslate)	Korean(retranslate)
Re: malay-252. 添付ファイルは翻訳されないでしょう。なぜなら、それは非常に難しいからです。	Re : malay-252. The appending file will not be translated. Because it is very difficult.	Re: malay-252. 附加文件不被翻译吧。要是为何，那非常难。	Re: malay-252. 첨파일은 번역되지 않아요. 왜냐하면, 그것 대단히 어렵기 때문입니다.



japana-272 Posted by: Won Je Yang document				
Subject:				
Date Posted: Wednesday, June 5, 2002 16:02:57				
Japanese(retranslate)	English(retranslate)	Chinese(retranslate)	Korean	Malay(retran
TransMailの場合 貼付ファイルの問題 (はそのように(そんなに)重要に見られるがしませんね。SMTPを経る前に Wrapper役割をしてくれるserverを経たら十分に可能たろうと見ます。	You can be seen or there is not a problem of the sticking file in the case of TransMail importantly like this (so). It sees that will be possible sufficiently if passing through server to raise by playing Wrapper role to pass through SMTP.	TransMail机动警察右粘帖文件疑问制那样(那样)重要河事是波特不有。经过SMTP前相暴的多面充分地可能下吏la恒发啦 Wrapper作用乙亥焦耳server.	TransMail의 경우 첨부 파일의 문제는 그렇게 중요하게 보이지 않군요. SMTP를 거치기 전에 Wrapper 역할을 해줄 server를 거친다면 충분히 가능하리라 봅니다.	Anda dapat liada suatu lekat ters TransMail sukakan in demikian) yang akan cukup mu melalui pe mengangl bermain p melalui SM



Outcomes: Software Implemented in ICE2002



- **TransSearch** (Group China)
 - Translate query terms and send it to “google.” Search results are browsed in TransWEB.
- **TransMail** (Group Japan)
 - Web base email service with translation function.
- **TransSMS** (Group Malaysia)
 - HTML-interfaced short message service for PDA users with translation function.
- **TransChat** (Group Korea)
 - Multilingual Chat Space

謝謝!

!

Thank you!

Intercultural **C**ollaboration **E**xperiment

<http://ice.kuis.kyoto-u.ac.jp/>

